

U.S. Serial No. 09/470,026
Response to Office Action dated October 6, 2004

In the Claims

1-20 (Cancelled)

21. (Previously Presented) A method for treatment of a vascular lesion, comprising the steps of:

introducing a guidewire into a vessel, the guidewire having an expandable occlusive member disposed on a distal end thereof;

advancing the guidewire to a region of interest and positioning the occlusive member distally of the region of interest;

advancing a catheter with an expandable stent over the guidewire and positioning the stent within the region of interest;

advancing an aspirating catheter over the guidewire to a position where the distal end of the aspirating catheter is immediately proximal the region of interest;

expanding the occlusive member;

expanding the stent within the region of interest; and

aspirating fluid and embolic debris from the region of interest;

wherein the step of aspirating fluid and embolic debris comprises the steps of simultaneously infusing fluid into the region of interest through an infusion lumen and one or more infusion ports disposed on the aspiration catheter and suctioning the fluid and embolic debris from the region of interest through one or more suction lumens in fluid communication with a vacuum; and

wherein the one or more infusion ports are disposed on the outer perimeter of the aspirating catheter.

22-29 (Cancelled)

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30. (Withdrawn) An endoluminal aspiration catheter, comprising: a guidewire having a proximal end, a distal end, an expandable occlusive member mounted on the distal end, and an irrigation port proximal the expandable occlusive member; an angioplasty catheter having a proximal end, a distal end, a lumen therebetween, and an expandable dilatation member mounted on the distal end, the lumen adapted to receive the guidewire; and an aspiration catheter having a proximal end, a distal end, a lumen therebetween adapted to receive the angioplasty catheter, and an aspiration port.

31-35 (Cancelled)

36. (Withdrawn) A method for treatment of a vascular lesion, comprising the steps of:

introducing a guidewire into a vessel, the guidewire having an expandable occlusive member mounted on a distal end and an irrigation port proximal the expandable occlusive member;

advancing the guidewire to a region of interest and positioning the occlusive member downstream of the region of interest;

advancing a therapeutic catheter over the guidewire and positioning the catheter within the region of interest;

advancing an aspiration catheter over the guidewire and positioning the aspiration catheter proximal the therapeutic catheter;

expanding the occlusive member;

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performing an endoluminal procedure within the region of interest;
infusing fluid through the irrigation port; and
aspirating fluid and embolic debris through the aspiration catheter.

37-41 (Cancelled)

42. (Withdrawn) A method of treatment of a vascular lesion, comprising the steps of:

introducing a guidewire into a vessel, the guidewire having an expandable occlusive member mounted on a distal end;

advancing the guidewire to a region of interest and positioning the occlusive member downstream of the region of interest;

advancing an aspiration catheter over the guidewire and positioning the aspiration catheter proximal the dilatation member, the aspiration catheter having a first lumen communicating with a first distal port and a second lumen communicating with a second distal port;

expanding the occlusive member; and

infusing fluid through the first lumen and first distal port and aspirating fluid and embolic debris through the second lumen and second distal port while the occlusive member is expanded.

43. (Previously Presented) The method of claim 21, wherein the expandable stent is a self-expandable stent.

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44. (Previously Presented) The method of claim 43, wherein the self-expandable stent comprises a shape-memory material.

45. (Previously Presented) The method of claim 43, wherein the self-expandable stent comprises a shape memory material thermally adapted to expand at or near body temperature.

46. (Previously Presented) The method of claim 43, wherein the self-expandable stent comprises Nitinol.

47-49 (Cancelled)

50. (Previously Presented) The method of claim 21, wherein the occlusive member is an expandable balloon.

51. (Previously Presented) The method of claim 21, wherein the occlusive member is an expandable balloon in fluid communication with an inflation lumen and inflation valve.

52. (Previously Presented) The method of claim 21, wherein the catheter further comprises a dilatation member disposable on the distal end of the catheter, and

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wherein the method further comprises the step of aspirating fluid and embolic debris from the region of interest while said dilatation member is maintained within the region of interest.

53. (Previously Presented) The method of claim 52, wherein the dilatation member is an angioplasty balloon disposable within the lumen of an angioplasty catheter.

54. (Previously Presented) The method of claim 53, wherein the step of aspirating fluid and embolic debris further comprises the step of aspirating fluid from the region of interest through a lumen and one or more aspiration ports disposed on the angioplasty catheter.

55. (Previously Presented) The method of claim 21, wherein the one or more infusion ports are shaped and configured such that the fluid flow from the one or more infusion ports will be directed radially and distally from the infusion ports.

56. (Previously Presented) The method of claim 21, wherein the one or more infusion ports and the one or more suction lumens are shaped and configured such that they create a venturi effect in the fluid flow.